

## UTILIZATION OF SOY BEAN CROP

Climatic Adaptations Are About Same as Corn—Is More Drought Resistant.

### FERTILE SANDY LOAMS BEST

Furnishes Well Balanced Ration in Combination With Many Systems of Rotation—Straw Makes Most Valuable Feed.

(Prepared by the United States Department of Agriculture.)

The extensive utilization of the soy bean for forage and the increased use of the beans for oil and for human food have resulted in an enormous increase in the acreage of the crop.

The climatic adaptations of the soy bean are about the same as those of corn. It is more drought resistant and less sensitive to an excess of moisture than cowpeas and corn. The soy bean succeeds best on fertile sandy loams and clay loams.

When sown on land not previously planted to this crop, it is advisable to inoculate it.

The best time for planting soy beans is about that for planting corn.

The variety to plant is of prime importance and should be one adapted to local conditions. About 20 varieties are now handled by growers and seedsmen.

#### Combined in Rotation.

Soy beans may be combined in many systems of crop rotations; their cash value being sufficient to encourage the growing of the beans as one of the main crops.

In combination with other crops, such as corn, cowpeas, and Sudan grass, the soy bean furnishes a well-balanced ration, a large yield, and a great variety of forage.

The large yield of seed, the ease of harvesting it, and the increasing demand for the beans for planting purposes, for food, and for the production of oil and meal recommend the soy bean for seed production.

The feeding value of soy bean seed compares favorably with that of other concentrated feeds. The growing of seed for feeding will produce, at a moderate cost, at least part of the high protein concentrates necessary for stock feeding and milk production.

#### Straw Is Valuable.

The straw obtained from thrashing soy beans for seed is a valuable feed for all kinds of stock.

The variety and palatability of the forms in which the soy bean can be served make it a very desirable article of human food, and its use as such is gradually increasing.

The soy bean makes an excellent hay for high feeding value which is greatly relished by all farm animals. From 1 to 3 tons of hay to the acre.



Soy Beans Are Well Adapted to Cultivation in Rows.

and occasionally 4 tons, are obtained.

As a pasture crop the soy bean can be used to advantage for all kinds of stock. The most profitable method is to pasture with hogs, supplementing the corn ration. Mixed with corn, the soy bean is excellent for ensilage.

No insect or fungous pest has assumed any great economic importance in the culture of the crop. The soy bean, however, is subject to root-knot, a disease caused by an nematode, or nematode, which occurs in many of the lighter soils of the South. To plant soy beans on such infested soil is a dangerous practice.

### USE OF GROUND LIMESTONE

Increased Yields of Corn, Oats and Hay as Noted by Test at Ohio Experiment Station.

Corn has been increased in yield 9 1/2 bushels per acre, oats 6 bushels, wheat 2-4 1/2 bushels and hay 3,010 pounds by an application of two tons of ground limestone once in five years on the farm of the Ohio experiment station at Wooster. A five-year rotation of corn, oats, wheat, clover and timothy is followed on this land. The limestone is spread on the land after the plowing for corn in the spring.

### PROMOTING GROWTH OF HOGS

Comparative Feeding Trial Conducted by Missouri Station With Soy-Bean Meal.

The Missouri station in a comparative feeding trial of soy-bean meal with linseed meal and tankage showed that these feeds were equally effective in promoting the growth of young hogs.

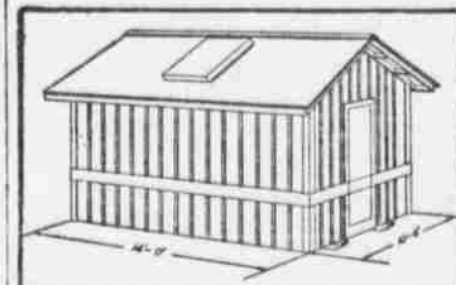
## HOMEMADE PORTABLE GRANARY IS USEFUL

Handy for Storage Products Other Than Grain Crops.

Wooden Structure, 10 by 14 Feet, Has Capacity of 660 Bushels of Grain—Easily Moved From One Place to Another.

(Prepared by the United States Department of Agriculture.)

Prohibitive prices due to a scarcity of granitized material have vastly restricted the farm use of the standard commercial types of portable granaries. But the division of rural engineering of the bureau of public roads, United States department of agriculture, has come to the farmers' relief with work plans, specifications and bills of material of a practicable portable granary which the individual farmer can build himself or can have



Practicable Portable Granary.

built by a local carpenter. These plans will be sent free on request to any farmer in the United States.

This portable wooden granary is 10 by 14 feet in floor dimensions and 9 1/2 inches to the eaves, with a capacity for 660 bushels of grain. It is built on skids or runners which permit of moving it from place to place by tractor or horse power. It is of such a height that it can be set near the separator during the thrashing operation, so that the grain can be deposited directly into storage. This eliminates the services of one or two wagons and their crews which otherwise would be necessary in transferring the grain from the machine to the storage bins. In addition, the portable granary is available for the storage of other farm produce or supplies when it is not needed as a grain container.

### SAVE SUPPLY OF FLAXSEED

Wise Policy for Farmer to Resist High Prices and Keep Enough Seed for Next Year.

(Prepared by the United States Department of Agriculture.)

Present high prices for flaxseed will tempt many farmers to sell all they have. This will be especially true in the sections where last year's drought was severe and crop production small. Now is the time, however, to resist the temptation of fancy prices and to save enough good seed for next year. Always use the fanning mill, for flaxseed sometimes carries serious flax diseases, and mustard seed left in it will cause a beautiful yellow field, even though all that's yellow is not gold. The bright, clean, heavy seed left after thorough fanning will be most free from disease.

Store your seed in a dry place, for it has mucilage in its overcoat and sticks like glue if it gets wet.

Remember your neighbor when fanning flax; for he may need some of your seed. It will help him as well as your community if he gets good seed from you, instead of using the poor seed which he may have to buy if he waits until seeding time next spring. If you have good seed for sale, tell your county agent and your state extension director. Owners of good seed of wilt-resistant strains should try to sell it only for seed purposes, rather than to let it go to the elevator to be sold for oil making, as farmers have not been able during the last two years to buy enough seed of wilt-resistant strains.

### OUTLET OF BIG IMPORTANCE

Minnesota Expert Urges That It Be Protected With Concrete Abutment and Screened.

(By H. E. Roe, Assistant Professor in Agricultural Engineering, University Farm, St. Paul.)

The outlet is of the first importance in tile drainage. There must be a clear fall away from it. Submerged outlets, so-called, are not outlets. They still leave that land undrained where the tile lies below the level of the water at the outlet.

An outlet right, purchased, through another man's land is usually worth what it costs. Protect your outlet with a concrete abutment. Screen it against the entrance of birds and animals.

### BOYS GROW MUCH WHEAT

Fifteen Thousand Respond to Call to Produce Much Needed Bread-Making Crop.

(Prepared by the United States Department of Agriculture.)

Reports coming to the states relations service of the United States department of agriculture warrant the estimate—considered quite conservative—of at least a 15,000 enrollment in boys' wheat growing clubs in the 15 southern states. These clubs in the South took up wheat growing only a year ago, at which time there was an enrollment of only 2,830 members who were growing this crop.



## FARM POULTRY

DIFFERENCES SEEN IN HENS

Individuals of Same Breed Are Not Always Equal in Respect to Meat or Egg Production.

(Prepared by the United States Department of Agriculture.)

Among general-purpose fowls all are not equal in respect to either meat or egg production. The difference is not due to size, or to the shape of birds in like condition, but lies in those things which keep one fowl in good laying condition when another goes out of condition, that enable one to lay continuously through a long period and still keep in good condition, while another loses flesh, becomes poor and thin, and incapable of further egg production—until she has had a rest—after a comparatively short period of laying.

The existence of all these, however, is not enough to insure good laying. There must, of course, be reasonable good management, even if the keeper has not special skill. But if with these qualities which make for continual lay-



Rhode Island Red Hen.

ing, there exists a tendency to put on fat whenever laying is interrupted, only unremitting skillful management to keep a hen in good laying condition will make her a first-class egg producer.

The egg type or laying type of hen, in any breed, is the hen that with the qualities that make for good egg production, has no quality which is an obstacle to continual laying. The meat type is not the converse of the egg type, even though the hen that is not a good layer is fit only for meat.

The meat type, in all kinds of poultry, is the type that grows rapidly and at maturity carries abundant flesh, especially where the preferred parts of the meat are produced. The most desirable meat type is rather fine in bone, with the frame well knit but not too compact. Under any kind of good management a hen of this type that is in normal condition will be a good layer. She may not lay any better than a hen not quite as well fleshed, but she ought to lay just as well, and when the time comes to make meat of her she makes more and better meat, and as a breeder she naturally tends to reproduce offspring that will make more and better meat.

Such hens are in reality of the dual purpose type, no matter what their size or breed. They are equally valuable for eggs and meat. That is the kind of stock that will contribute most to the big increase in poultry that is wanted. It is the dual-purpose type of every breed—a type that exists in every breed, and can easily be made the prevalent type without detriment to any breed, and to the benefit of every breed—that has suffered from neglect.

### POULTRY RAISING ON FARMS

Little Capital Is Required and Nothing Equals It as Profitable Side Line.

Poultry raising requires very little capital, but there are very few side-lines, if indeed there are any, that are equal to it for profitable production. Much is said of the time it requires for raising young fowls. But do not forget that when they are managed properly the fowls pay liberally for the time required to raise them. Farming is greatly handicapped for lack of cash and when any side-line can be found that requires little money but considerable labor it is attractive. Such is poultry raising on the farm.

### FOWLS FOR BREEDING STOCK

Young Hens With Blunt Toenails Are Not Layers—Same Applies to Male Birds.

Be sure to look at the toenails of the year-old and two-year-old hens being selected to hold over for next season's breeding stock. The hen that has worn her nails blunt and short has not been a layer, and if the other well-known signs are in her favor, she is worth a place in the breeding pen. The blunt, short toenails are a good indication on the cock birds as well

## PUBLIC ROADS

### GOOD ROADS FOR MILITARY

Smooth Highways Imperative in Proper Movement of Army Equipment Along Coasts.

It is generally recognized by government officials, especially those of the army, that one of the most important phases of real military preparedness that can possibly be undertaken in this country is that which is going on under the impetus of the good roads movement. The federal aid road act which was signed by President Wilson last summer will probably play an important part in this same interest. An appropriation of \$75,000,000 has been provided for in this act for use in constructing rural post-roads, while the various states are to co-operate in providing a like fund.

It is planned thus for an expenditure of \$150,000,000 on such roads within the next five years. Although the roads are intended primarily for the purpose of developing the resources of the national forests, and in the interest of agriculture and other peaceful enterprises, some study is now being made of their practical use in the interest of military preparedness.

A good road, well built, well surfaced and well drained may be, it is pointed out, of immense value from a military point of view. In the location of roads, particularly along the shore, special attention to military requirements in the laying out and planning of a highway may prove of inestimable value at some time in the future when that highway becomes a military road.

From an economic standpoint it is estimated that it costs 23 cents to haul a ton a mile on the average country road under present conditions, while under proper conditions the cost would be but 13 cents. While these figures measure a direct cost, there is an even greater indirect cost to consider with bad roads when the farmer must plan his operations according to the weather.

It is a matter of special interest that at the present time roads on the Pacific coast and those in some of the important Atlantic states which



Traffic on Courthouse Road, Spotsylvania County, Virginia.

would be of particular use for effective military purposes in defending our coasts are already in very good condition. There is one trunk road which runs all the way from southern California up through Oregon, with many smaller roads branching from it, that is said to be in the best of condition.

Yet it is a matter of regret that the unsurfaced roads of the United States if laid out in a straight line would, it is estimated, girdle the earth at the equator more than eighty times, while the surfaced roads would reach but one-fourth that distance. However, there has been greatly increased expenditures for road building and maintenance in the last decade and there is not a more hopeful outlook with the new construction program provided under the federal aid act.

### Roads an Indispensable Asset.

The time has come when we must consider the roads an asset, indispensable to the well-being of the farmer and his family. This being true, is it not every man's duty to do all he can to keep the roads in good condition? The individual as well as the county is responsible.

### Advantages of Good Roads.

Farm life cannot give as many social opportunities as the life of towns, for people are not so numerous, but good roads, by providing easy means of communication, will first help the people already living on the land, and second attract more people to the land thus favored.

### Neglect Is Poor Economy.

To build roads and then permit them to deteriorate is very poor economy and thus a reflection upon the people.



## Marines, Oldest Branch of Our Military Service

WASHINGTON—The Fourth American brigade was cited the other day. This brigade comprises the Fifth and Sixth regiments of marines and the Sixth machine-gun battalion. These are the marines who immortalized themselves at Bouresches village and Bois de Belleau, now officially the Wood of the American Marines—the marines themselves call it Hellwood.

All the world knows about those 12 days at Chateau Thierry—how they blocked the German advance that was rolling on toward Paris six or seven miles a day; how they threw back the crack guard divisions of the Hun; how they drove them backward into the retreat that ended only with surrender.

"Soldiers and sailors, too;" "leathernecks," always ready; picked men, physically perfect; sharpshooters and expert riflemen; the first to land and the first to fight—the marines! "What we have, we hold," their motto. Their stereotyped report: "The marines have landed and hold the situation well in hand." Their battle cry: "E-e-e-e-y-a-a-h-h-h-yip!"

The marines constitute the oldest branch of the military service of the United States. They are even older than the nation itself, having been established by the Continental congress in November, 1775. Pretty much all the world has seen them since; in their 143 years they have made history from Tripoli to China, from the Philippines to Mexico.

In 1913 an attempt was made to abolish the marines as no longer a serviceable branch of the navy. But the people would not have it. Congress took measures to strengthen the corps instead of disbanding it. When we entered the war the marines were recruited up to 30,000 and sent to the front as land troops.

You know the rest.

## What Is a Bolshevik? And What Is Bolshevism?

"WHAT is a bolshevik?" "What is bolshevism?" These are questions which many Americans are asking these days. Probably the word bolshevik was first used in Russia in 1905 after the splitting of the socialist party. It was applied to the majority faction, "bolshe" meaning "majority."

The socialists split over the "fundamental law" decree. The minority, the mensheviki, was composed of the conservatives who did not favor violence as a method of obtaining reform. The bolsheviki were the radicals who favor bombing, sabotage and terrorism as the means to their end. Whatever bolshevism originally meant, today it means something about like this:

Bolshevism proclaims that socialism as taught by Marx is the panacea for all social and economic ills. Therefore establish at once a socialist republic. Abolish nationalism for internationalism.

Inasmuch as Marxian socialism prescribes seizure and nationalization of private capital, public utilities and all means of production, everything in sight is to be taken over by the socialist state. Theoretically, compensation may be made to escape disorder and violence. But just now compensation is sentimental and unnecessary, owing to conditions.

Bolshevists hold that the upper and middle classes must submit unconditionally or perish; they are excluded from participation in the government, which must be entirely in the hands of the proletariat. If they resist, terrorism is as justifiable against them as against a tyrannical czar. Opposition is treason to the socialist state.

Bolshevism abhors genuinely democratic and free government. Its dictatorship supersedes the dictatorship of the autocrat or the military despot. Its leaders advocate and practice to the extent of their power the merciless suppression of all civil and political rights.

## Europe Discovers the American Superphysique

EUROPE has discovered from our armies in France that the American physique is superior to any of her own. American months show American dentistry—and good teeth mean much to a soldier. Americans, except the British, are the only soldiers accustomed to bathe—and medical science appreciates the bath. American soldiers are bigger, huskier and show more "pop."

Dentistry and bathing are well in their way. But the real reason for the American physical superiority is the plentifulness of food in the United States. Europe in our time never has had enough to eat. In America we waste enough to feed the French and Italians. In the reign of Henry VIII, Froude declared, every English family had beef every day. Certainly never since then has every English family had beef once a week. And England has long been better fed than Europe ever was.

Just now we Americans are eating less and complaining of high prices. We do not know when we are well off. This country has had more food and better distribution of supplies than Europe ever saw, notwithstanding our railroad congestion and faulty methods of transportation.

Moreover, here are better care for the body, more conveniences, more comforts and more mechanical appliances to make life easier. We are farther along the road to material felicity than ever was any country in any period of civilization. The United States is the nearest approach to Elysium.

As the result, the average American is a better animal, a better intelligence and probably a better moral person than the average.

From an entirely scientific viewpoint, the average American has doubtless a better endowment, a better chance, a better living and a longer life than the average European.

Europe also discovered in the American a first-class fighting man.

## When Johnny Comes Marching Home Again, Hurrah!

"WHEN Johnny Comes Marching Home Again, Hurrah!"—there will be great doings. Already the advance guard is arriving and it is easy to get an idea of what will happen when the soldier and sailor boys return in force. The welcome will be warm. Nothing will be too good for them.

But there is more to the homecoming of these boys than a warm welcome. There are many serious problems to be met and solved. To take care of these men, to see that they are returned to useful positions in civil life, is primarily the duty of the federal government. Uncle Sam is a capable person when he gets started. Nevertheless, he has a big job on his hands and there will be plenty of chance for the home folks to help—not only their own, but the boys who have no home folks.

Those who find no job waiting for them must be given work. The disabled must be rehabilitated, trained and made self-supporting. Then there's the boy who took a war bride and has no home—

In the old days, when a pioneer's son married, his father gave him a piece of land and a horse or a pair of oxen. The bride's father gave her a cow and chickens. The mothers contributed pots, pans and kettles. The neighbors got together and had a house-raising. First they knew the young couple had a neat little cabin with all the necessary fix'n's.

Of course this sort of thing can't be done in the twentieth century in just that way. But it seems as if the same kind of spirit might prevail now as then. Love and co-operation are not lost virtues. And with love and co-operation almost anything may be done.

